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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,303	09/22/2005	Yuki Watanabe	ASAIN 0167	1166
24203	7590	10/31/2007		
GRIFFIN & SZIPL, PC SUITE PH-1 2300 NINTH STREET, SOUTH ARLINGTON, VA 22204			EXAMINER BAKER, DAVID S	
			ART UNIT 2884	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/550,303

Applicant(s)

WATANABE ET AL.

Examiner

David S. Baker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,7,16,17 and 24-26 is/are allowed.
- 6) ☒ Claim(s) 1-5,8-15,18-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 02/14/07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 21 June 2007 has been accepted and entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5, 8-15, and 18-23 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "about" in claims 1 and 12 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. Deletion of the term "about" or the replacement of the term with the acceptable term "substantially" can overcome this rejection.

Regarding claims 2-5, 8-11, 13-15, and 18-23, the balance of claims is rejected to due to their dependence upon a claim that has already been rejected for being indefinite.

### ***Double Patenting***

Claims 12, 13, 14, 15, 21, 22, and 23 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 1, 4, 10, 11, 18, 19, and 20, respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one

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claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

*Allowable Subject Matter*

5. Claims 6-7, 16-17, and 24-26 are allowed.
6. Claims 1-5, 8-11, and 18-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
7. Claims 12-15 and 21-23 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph as well as the objection(s) under 37 CFR 1.75, set forth in this Office action.

Regarding claims 1 and 12, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, a method of inspecting a target by tera-hertz wave spectroscopic measurement comprising: namely the combination of, pre-measuring a first spectrum matrix of THz wave absorbencies; irradiating an object with a plurality of THz waves and measuring second matrix of object THz wave absorbencies; and determining the presence of a target component based on the first and second absorbance matrices. While at the method of collecting a baseline absorbance spectrum along with an experimental absorbance spectrum of an object to determine component presence is well known in the art, the instant application must be considered with certain details in mind. THz radiation is widely absorbed by water vapor, alcohol, ammonia, and HCl in the claimed frequency range of 1THz – 3THz. Due to these high absorptions, simple background filtering in this range is avoided. This is due

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to the enormous amount of data comparison that would be required to extract meaningful information about the collected spectrums. Because of this, the prior art of record teaches away from the instant application's method of analysis.

Regarding claims 2-5, 8-11, 13-15, and 18-23, the balance of claims is found to contain allowable subject matter due to their dependence upon a claim that already contains allowable subject matter.

Regarding claim 6, the prior art of record does not disclose or reasonably suggest, along with the other claimed limitations, an apparatus for inspecting a target using tera-hertz wave spectroscopic measurement comprising: namely the combination of, a spectroscopic measurement device that measures a two-dimensional distribution matrix of light absorbency of an object; and a target density calculation device that calculates a two-dimensional distribution matrix of a target density based on a pre-measurement spectrum of light absorbency of a target and the two-dimensional distribution matrix of the light absorbency. Please see the explanation of the reasons for allowance of claim 1 to understand the special circumstances of THz absorbency concerns in the instant application.

Regarding claims 7, 16-17, and 24-26, the balance of claims is found allowable due to their dependence upon an already allowed claim and lacking any technical errors.

#### ***Response to Arguments***

8. Applicant's arguments, see pages 15-17 of the amendment, filed 21 June 2007, with respect to claims 1-26 have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6,078,047 A – Mittleman discloses a method and apparatus for THz wave imaging.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Baker whose telephone number is (571) 272-6003. The examiner can normally be reached on MTWRF 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSB



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